Reporting Federal Activities and Matters of National Concern . . .

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Bond Sales for Higher Education: Calendar Year 1963

W. ROBERT BOKELMAN and ELMER C. DEERING

Desegregation in Southern Higher Education

GUY B. JOHNSON

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE—Office of Education

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Bond Sales for Higher Education: Calendar Year 1963

By W. ROBERT BOKELMAN and ELMER C. DEERING*

DURING calendar year 1963 the higher education institutions in the United States and Puerto Rico received $752,412,000 from 521 bond sales to finance construction: publicly controlled institutions received $536,889,000 from 324 sales; privately controlled, $215,523,000 from 197 sales. (The total would have been higher if all sales by school districts for junior college facilities could have been identified and included.) The average interest rate for bonds sold by public institutions was 3.32 percent, ranging among States from 2.50 to 3.84 percent; for private institutions the average was 3.38 percent, ranging from 3.03 to 3.50 percent (see table 1).

Most of the bonds were revenue bonds—$601,341,000 compared to $151,071,000 in general obligation bonds. Revenue bonds made up almost three-fourths of the sales by public institutions and all but one of the sales by private institutions (the exception amounted to $425,000). Revenue bonds are amortized mainly by the net proceeds from the buildings financed (such buildings as dormitories, dining halls, or student centers).

Six States accounted for more than half of the total sales: California, $57,033,000; Illinois, $93,435,000; Kentucky, $28,704,000; New York, $138,766,000; Ohio, $42,740,000; and Texas, $33,605,000. States with totals of more than $10,000,000 were:

For public institutions	*Thousands*
California	$42,150
Georgia	23,538
Illinois	83,730
Indiana	20,065
For public institutions—Continued	
Kentucky	27,734
Missouri	14,796
New York	69,681
Ohio	27,200
Oklahoma	20,268
Oregon	20,100
Tennessee	10,592
Texas	31,151
Washington	15,216
For private institutions	
California	14,883
New York	69,085
Ohio	15,540
Pennsylvania	17,915

No bond sales for public institutions were reported by Connecticut, Massachusetts, Nebraska, Nevada, Pennsylvania, South Carolina, Vermont, the District of Columbia, and Puerto Rico. None for private institutions were reported by Alaska, Arizona, Delaware, Montana, Nebraska, Nevada, North Dakota, Oklahoma, Utah, and Wyoming.

Stimulus from College Housing

The College Housing Program, administered by the Housing and Home Finance Agency (HHFA), provided a stimulus to bond sales. One of the requirements of this program is that any issues sold under it be advertised and that nongovernment financial agencies be given an opportunity to offer a rate at least equal to the College Housing bid on all or any part of the issue. During 1963 such agencies bought issues amounting to $56.4 million. In addition, College Housing purchased $144.9 million from public colleges and universities and $170.1 million from private. All of the purchases by nongovernment agencies represented public colleges and universities and all were of the early maturing portions of those issues.

College Housing's resources for bond purchases were further expanded during the year when $19.8

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million of the bonds in its portfolios were sold in the nongovernment market.

Function of the Facilities

About two-thirds of the total receipts from sale of bonds for institutions of higher education in 1963—$501 million of the $752 million—were for the construction of auxiliary facilities. Sales for academic facilities amounted to $240 million for public institutions and to almost $2 million for private institutions. Sales for campus improvements totaled almost $9 million, all by public institutions. Of the auxiliary facilities, most were residential or combined residential with other auxiliary functions. Sales by public and private institutions by function of facility were as follows:

	Sales (number)	*Amount sold (thousands)*	*Average interest (percent)*
ALL INSTITUTIONS			
All facilities	521	$752,412	3.35
Academic	49	242,293	3.22
Instructional	44	170,343	3.35
Multipurpose[1]	5	71,950	2.92
Auxiliary	461	501,422	3.41
Residential	310	347,858	3.41
Residential-dining	62	77,025	3.43
Residential-student center	22	24,412	3.37
Residential-dispensary	1	495	3.37
Student center	46	41,529	3.40
Dining	8	4,158	3.00
Dispensary	4	1,843	3.17
Student center-dining	6	2,484	3.35
Stadium	1	418	3.89
Stadium-fieldhouse	1	1,200	3.73
Campus improvements	11	8,697	3.14
Power or heating plant	3	3,612	3.21
Land	5	2,920	2.99
Parking	2	1,990	3.24
Other	1	175	2.93
PUBLIC INSTITUTIONS			
All facilities	324	536,889	3.32
Academic	47	240,428	3.22
Instructional	42	168,478	3.35
Multipurpose[1]	5	71,950	2.92
Auxiliary	266	$287,764	3.42
Residential	192	209,733	3.43
Residential-dining	20	28,426	3.39
Residential-student center	8	7,160	3.42
Student center	30	33,872	3.41
Dining	6	3,728	2.96
Dispensary	3	1,743	3.15
Student center-dining	5	1,484	3.49
Stadium	1	418	3.89
Stadium-fieldhouse	1	1,200	3.73
Campus improvements	11	8,697	3.14
Power or heating plant	3	3,612	3.21
Land	5	2,920	2.99
Parking	2	1,990	3.24
Other	1	175	2.93
PRIVATE INSTITUTIONS			
All facilities	197	215,523	3.38
Academic	2	1,865	3.28
Instructional	2	1,865	3.28
Auxiliary	195	213,658	3.38
Residential	118	138,125	3.37
Residential-dining	42	48,599	3.45
Residential-student center	14	17,252	3.35
Residential-dispensary	1	495	3.37
Student center	16	7,657	3.36
Dining	2	430	3.38
Dispensary	1	100	3.50
Student center-dining	1	1,000	3.13

[1] Funds to be used for construction of a building with more than one academic purpose.

The percentage distribution of sales by all institutions among the various types of facilities was as follows:

	Public (percent)	*Private (percent)*	*Total (percent)*
Academic	44.8	0.9	32.2
Instructional	31.4	.9	22.6
Multipurpose	13.4	-------	9.6
Auxiliary	53.6	99.1	66.6
Residential	39.1	64.1	46.2
Residential-dining	5.3	22.5	10.2
Residential-student center	1.4	8.0	3.2
Residential-dispensary	-------	.2	.1

(Continued on page 15)

Desegregation in Southern Higher Education

By GUY B. JOHNSON*

IN THE SOUTH higher education, like public school education, developed along racially segregated lines. Segregation not only was sanctioned by social custom, but after the close of the Reconstruction period was made compulsory by law in the 17 Southern and Border States and in the District of Columbia. In this region there eventually sprang up about 600 white and about 100 Negro institutions of higher education. The story of the transition from complete segregation to a high degree of desegregation in these institutions is a dramatic example of peaceful and rapid change in the structure of race relations.

The story begins in 1935, when a Negro student obtained a State court order for his admission to the University of Maryland Law School on the principle that the failure of the State to provide the same training for Negro students that it provided for white students deprived him of "equal protection of the laws." In 1938 the case of Lloyd Gaines against the University of Missouri led to a Supreme Court decision based on this same principle. After World War II this legal advantage was pursued by Negro plaintiffs. It was relatively easy to prove in court that certain professional and graduate courses which were offered to white students were either not offered or were grossly inferior in the Negro institutions. Thus in 1948 there began a series of Supreme Court decisions which opened one Southern and Border State-supported institution after another to Negroes; prior to 1948 only the University of Maryland, West Virginia University, and three or four church-supported white institutions had admitted Negroes. Between 1948 and the momentous Supreme Court decision of 1954 in the school segregation cases, the number had grown to about 25 public institutions and a like number of church and private institutions. The 1954 decision quickened the pace of desegregation and extended its applicability to the undergraduate level. Today some university and college desegregation has occurred in every Southern State. The major dimensions of this great social change will be sketched briefly.

Dr. Johnson is Kenan Professor of Sociology and Anthropology at the University of North Carolina, Chapel Hill, N.C. He bases his article on his study of desegregation in southern colleges and universities.

The Extent of Desegregation

Desegregated white institutions.—The simplest measure of desegregation is the proportion of all white institutions which have opened their doors to Negroes. Table 1, which summarizes the present situation, shows that 72 percent of the white public institutions have been desegregated and that fewer of the church and private institutions, acting completely voluntarily, have been desegregated.

Table 1.—Desegregated white institutions in the South, by type of control, 1964

Control	Total	Desegregated	
		Number	Percent
Public	251	182	72
Church	235	120	51
Private	114	48	42
Total	600	350	58

Since the South is not one solid region and since the pace of desegregation is to some extent a matter of geography, it is useful to break the South into the following subregions, ranging across the map from east to west: Border States: Delaware, Maryland, District of Columbia, West Virginia, Kentucky, Missouri, Oklahoma; Middle States: Virginia, North Carolina, Tennessee, Arkansas, Texas; and Deep South: South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana. In table 2, which relates only to the publicly supported institutions, the

Table 2.—Desegregated white public institutions in the South, by subregions, 1964

Subregion	Total	Desegregated	
		Number	Percent
Border States	78	78	100
Middle States	96	76	79
Deep South	77	28	36
Total	251	182	72

geography of desegregation stands out clearly. The Border region accepted the idea of integration readily, the Middle region has been slower, and the Deep South has resisted vigorously until quite recently.

The time factor is also interesting, and this is indicated in table 3, where the progress of the three subregions toward desegregation is shown for 1954, 1961, and 1964. The Border States rather quickly reached complete desegregation, the Middle States are slower but are rapidly catching up, while the Deep South, in spite of doubling its percentage desegregated in the last 3 years, still has nearly two-thirds of the way to go. However, the trend is clear, and one may confidently predict that in the not too distant future no public colleges and universities in the South will be holding on to segregation. And it is worth remembering that the only serious incidents of disorder or violence in the desegregation of 350 southern colleges and universities are those which occurred at the University of Alabama and the University of Mississippi.

Desegregation in reverse.—For many years about half of the church and private Negro institutions have quietly accepted an occasional white student, but the tax-supported colleges have had to wait for the green light from State governments. At present the percentages of Negro public institutions desegregated are as follows: Border States, 100 percent, Middle States, 78 percent, Deep South, 11 percent, and Total South, 46 percent. Thus the Border and Middle States have the same pattern as they have for the white public institutions, but on a statistical basis the Deep South Negro colleges appear to be even more conservative than the Deep South white institutions.

Table 3.—Cumulative percentage of total white public institutions desegregated, by subregions, 1954, 1961, and 1964

Subregion	Percent desegregated		
	1954	1961	1964
Border States	20	100	100
Middle States	8	64	79
Deep South	3	17	36

While there is no great rush of white students to enroll in the average Negro college, there are some instances in which a combination of factors has brought about striking changes. For example, more than 100 white students are enrolled at Kentucky State College and more than 500 in Lincoln University of Missouri, and West Virginia State College now actually has a white majority—1,100 white to 900 Negro students. It seems likely that before many years have passed the label "white" or "Negro" on an institution will have lost most of its meaning.

Negro enrollment in "white" institutions.—What is the size of desegregation as measured by the number of Negroes now enrolled in formerly white institutions? It is becoming increasingly difficult to answer that question because administrators are reluctant to maintain any figures by race. However, on the basis of certain official figures and some good estimates, the situation can be summarized fairly accurately. Negro enrollment ranges from fewer than 5 students in some of the recently integrated universities, such as Alabama, Florida, and South Carolina, to more than 400 in some of the Border State universities. A few figures may be cited by way of illustration: University of Arkansas, 20; Louisiana State University, 60; University of North Carolina, 60; University of Kentucky, 125; University of Oklahoma, 225; University of Missouri, 300; University of Maryland, 450.

The number of Negroes now attending "white" public institutions is about 10,000. If the estimated number attending church and private institutions (from 4,000 to 5,000) is added, the total is roughly 15,000. If the Negro students attending Negro institutions which enroll white students are included, then the grand total of Negroes now

experiencing coracial higher education in the South would probably be more than 40,000.

The Quality of Desegregation

More important perhaps than the amount of desegregation is the matter of the extent to which the Negro student in the formerly all-white institutions is accorded equality as a campus citizen. Several aspects of this question will be discussed briefly.

Admission policies.—Official policy with respect to the admission of Negro students varies from hostility to complete fairness, depending upon the political climate and the location of the schools. It is easy to imagine that masses of Negroes are eager to move into the desegregated institutions and are being thwarted by unfair admission policies, but such is not the truth of the matter. Discrimination is a minor cause of the relatively low Negro enrollment in most desegregated institutions of higher education. Much more important causes, I believe, are the Negro student's awareness of inferior academic preparation, his fear of a new level of competition, his loyalty to racial institutions, his anxiety over greater expenses, and his reluctance to expose himself to possible snubs and embarrassments in the integrated college situation.

Accommodations and privileges.—In the early stages of desegregation by court order, administrators were extremely cautious. In some cases they attempted to segregate the Negro student in the library, the dining hall, the lavatory, and even the classroom, but a Supreme Court ruling in an Oklahoma case put a brake on the general adoption of these practices. The general trend now is toward making all campus facilities available without regard to race. In some schools that I know of dormitory rooms are now routinely assigned without any thought of the race of the inmates. However, I also know of exceptions. There are still some schools which do not offer nonsegregated housing, and there are some which withhold swimming pool privileges from Negro students. It is in the Deep South, where desegregation is still something of a novelty, that the most conservative practices prevail.

Campus participation.—In most of the desegregated schools Negroes participate rather freely in campus affairs. They have entered into many voluntary associations, have been elected to various offices, and have won membership in Phi Beta Kappa and other scholarship societies. In athletics their abilities are only beginning to be sought after, because there have been social and political pressures against scheduling "mixed" teams, but this situation is changing, and there will be some Negro "stars" on the southern teams in the near future.

It is only in the realm of intimate social contacts that there is a persistent tendency to draw the color line. In the routine social affairs of the class, the scholastic society, and the like, there is a good deal of participation as equals, but the intimate social world of dating and of fraternity and sorority membership is a very different matter. Here the problems are only beginning to be talked about.

Academic adjustment.—The Negro student's greatest anxiety seems to center on "making the grades". More often than not he has had an inferior preparation for college or graduate school, and he realizes that he must work very hard. Apparently he has been quite successful, since his average of flunking and dropping out is generally considered no worse than the white student's average. It might be asked whether his professors are being overly sympathetic in grading. It may be true that here and there an individual professor may have given him the benefit of the doubt in grading, but on the whole the professors are determined not to allow a double standard of grading to develop.

The off-campus community.—There is often a decided contrast between the relatively democratic campus and the hard facts of segregation in the off-campus community. It is interesting to note, however, that campus desegregation has been a factor in community desegregation. White students have often joined Negro students in trying to break down the color bar in restaurants, movies, bowling alleys, etc. Acceptance of Negro patronage by such places is now very common in the Border States and fairly common in the Middle States, but it is rare in the Deep South.

The Future

The transition from complete segregation to a rather high degree of desegregation in southern higher education in the past 15 years is almost a miracle in the annals of social change. The necessary regulative and structural changes will soon be completed, but there remains the task of arriving at the condition of equality of status and opportunity

(Continued on page 10)

How Much Does College Classroom Space Really Cost?

By E. EUGENE HIGGINS and ANNA JANE HOLBROOK*

THOSE who inquire concerning the cost of a college classroom building may be given a figure somewhere between $15 and $25 per square foot. These figures are very close to the range reported per square foot of *gross* area in an Office of Education study, "Inventory of College and University Physical Facilities, December 31, 1957," [1] for buildings containing 10 or more academic classrooms constructed during 1956 and 1957 (table 1). The inquirers might be much surprised, however, to learn the cost per square foot of *assignable* area, and even more surprised to learn the cost per student station when classroom and student-station utilization are considered.

From the data reported for the inventory, the Office has derived the following area relationships and costs pertaining to classroom buildings over the Nation:

1. As a national mean, the assignable area is 67.9 percent of the gross area of classroom buildings (67.5 percent in the Northeast region, 65.4 percent in the North Central, 68.6 percent in the South, and 71.4 percent in the West). The other 32.1 percent of the gross area is occupied by restrooms, corridors, stairs, wall and partition thicknesses, and other unassignable area. (The inventory further found that only 33.8 percent of the total assignable area in buildings having an academic classroom primary function is actually allocated to classroom use.)

2. The average number of student stations per classroom in public institutions is 42 for the United States; the regional range is from 37 in the South to 47 in the North Central region. For private institutions the average is 40 student stations for the United States; the range is from 36 in the South to 42 in the Northeast region (table 2).

3. The average size (in assignable area) of a classroom in public institutions is 721 square feet for the United States, ranging from 670 in the South to 743 in the Northeast and West. For private institutions, the average is 675 square feet for the United States, ranging from 656 in the South to 689 in the Northeast (table 2).

4. The average area of a classroom student station is 17.1 square feet for both public and private institutions, with a regional range from 15.9 to 18.5 for public institutions and from 16.3 to 18.4 for private institutions (table 2). The area of a student station is the assignable area required to provide all accommodations necessary for one student.

Table 1.—Construction cost per square foot of *gross* area in higher education buildings containing 10 or more academic classrooms constructed during 1956 and 1957, by region: United States

Region	Mean	Median	Interquartile range
United States [1]	$18.01	$17.17	$13.69–$20.13
Northeast [2]	23.56	26.89	15.29– 29.75
North Central [3]	15.73	16.91	15.88– 18.64
South [4]	14.52	14.41	11.44– 17.70
West [5]	16.60	16.41	14.38– 19.21

[1] Contiguous States only; excludes U.S. Service Schools.

[2] Includes Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

[3] Includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

[4] Includes Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia, and District of Columbia.

[5] Includes Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

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[1] Part 3 of a 5-part U.S. Office of Education study, *College and University Facilities Survey*, now in preparation and to be published in 1964. The Inventory will be updated at intervals.

5. Regional means for cost per square foot of *gross* area for buildings containing 10 or more academic classrooms constructed in 1956 and 1957 ranged from $14.52 to $23.56, and medians from $14.41 to $26.89 (table 1).

When the 67.9 percent factor (ratio of assignable area to gross area) is applied to a hypothetical classroom building having 100,000 square feet of gross area and costing $20 per square foot ($2,000,000) the cost per square foot of the assignable area becomes $29.46. While this *is* the cost per square foot of the assignable area for initial possession, *real* cost is related to time (with respect to life expectancy of the building and frequency of use) and to size of student stations. To expect to use classrooms every hour of the scheduling week and to use every student station during every hour of scheduled use is not realistic, however, and both experience and estimates of attainable percentages of use in each situation fall short of 100 percent.

In order to correlate all of the factors having relevance to time and efficiency of use, the following equation or formula for determining the cost *per student-station week* has been devised:

$$\left.\begin{array}{l}\dfrac{\text{Cost for construction of classroom (gross area)}}{\text{Life expectancy (years)} \times \text{weeks per year during which classes are scheduled} \times \text{utilization factor}} \\ \hline \text{Classroom capacity (student-stations)} \times \text{utilization factor}\end{array}\right\} = \text{Cost per student-station-week}$$

To illustrate for an "average" public institution (utilizing the norms reported), let us assume a construction cost of $20 per square foot of gross area, a 50-year life expectancy for the building, and a semester calendar of 36 weeks during which classes are scheduled over a period of 45 hours, without regard to the number of hours the classroom is actually in use or how many of its student stations are utilized.

First, the cost of the classroom must be computed. If the assignable area of the classroom is 721 square feet, the gross area required to produce it will be 1,062 square feet. At $20 per gross square foot, this classroom for 42 student stations of 17.1 square feet of assignable area each will cost $21,240. The cost per student-station week is then derived by use of the formula:

Table 2.—Classroom and student-station size of general or academic classrooms at higher education institutions, by region: United States,[1] as of Dec. 31, 1957

Region	Mean size of classroom (sq. ft.)	Mean number of student stations in each classroom	Mean size of student stations (sq. ft.)
Public institutions			
United States	721	42	17.1
Northeast	743	41	18.5
North Central	761	47	15.9
South	670	37	18.1
West	743	45	16.6
Private institutions			
United States	675	40	17.1
Northeast	689	42	16.3
North Central	677	40	17.1
South	656	36	18.4
West	672	41	16.6

[1] Based upon State means of contiguous States only; excludes U.S. Service Schools.

$$\left.\begin{array}{l}\dfrac{\$21{,}240 \text{ (classroom cost)}}{50 \text{ (years)} \times 36 \text{ (weeks)} \times 1.0 \text{ (utilization)}} \\ \hline 42 \text{ (student stations)} \times 1.0 \text{ (utilization)}\end{array}\right\} = \$0.2809 \text{ Cost per student-station-week}$$

A California study [2] suggested 80 percent room use (36 class hours of a possible 45) and 67 percent student-station utilization for that State's institutions. A Wisconsin study suggested 67 percent room use and 67 percent student-station utilization

[2] *A Restudy of the Needs of California in Higher Education.* Prepared for the Liaison Committee of the Regents of the University of California and the California State Board of Education by the Joint Staff of the Liaison Committee and the Chief Consultant for the Restudy. Sacramento, California State Department of Education, 1955. p. 307–310, 320–322.

as standard for that State's institutions.[3] John Dale Russell[4] has found 50 percent room use and 50 percent student-station utilization average over the Nation.

Table 3.—Weekly cost of owning-using student-station(s) based upon depreciation in 50 years, by calendar plan and pattern of utilization

Calendar organization	Utilization base and cost *per week*			
	100 percent room use; 100 percent student-station utilization (Baseline)	80 percent room use; 67 percent student-station utilization (California)	67 percent room use; 67 percent student-station utilization (Wisconsin)	50 percent room use; 50 percent student-station utilization (Russell)
Section A. Student station				
Semester [1]	$0.28	$0.52	$0.63	$1.12
Quarter [2]	.23	.43	.51	.92
Trimester [3]	.22	.42	.50	.90
Section B. Classroom (42 student stations)				
Semester [1]	$11.80	$22.01	$26.29	$47.20
Quarter [2]	9.65	18.01	21.51	38.62
Trimester [3]	9.44	17.61	21.03	37.76

[1] 36 weeks per year.
[2] 44 weeks per year.
[3] 45 weeks per year.

From the preceding illustration and application of the three rates of classroom use and student-station utilization we can compute the cost of ownership-use per student-station-week under several plans for calendar years (section A of table 3). (The purpose here is *not* to consider costs of financing, maintenance, operation, instruction, and the like, but to explore the cost of owning space with respect only to the frequency and extent of its use.) Section B of table 3 shows the cost per week for ownership and use of a classroom of *42* student stations.

The effects of calendar organization, classroom use, and student-station utilization on the ultimate cost of classroom space challenge governing bodies to study their institutional practices, seeking methods for obtaining maximum use of existing facilities. There is currently great interest in this subject as a part of the planning to meet the growing needs of higher education. Interest is not limited to the weekly schedule of classes but extends to revision of the calendar, which has been or is being accomplished by a number of institutions,[5] and to size of student stations. (The reader is reminded that assignable area for a student station in the foregoing calculations is a national average.) Of equal importance to college administrators is the task of planning optimum use of space in facilities yet to be constructed.

[3] Frederick E. Schwehr (director). *A Survey of Physical Facilities at Wisconsin State College and University of Wisconsin, Fall 1958.* Joint Staff Study XXXIII, Part III. Madison, The Coordinating Committee for Higher Education, August 1960. p. 44.

[4] John Dale Russell. "Space Utilization," in *Proceedings of the Forty-Seventh Annual Meeting, Central Association of College and University Business Officers* (Chicago, Illinois, May 4–6, 1958). Evansville, Indiana, The Association, Ralph Olmsted, Secretary, Evansville College. p. 59–60.

[5] Vivian J. Kaplan. *Some Examples of Better Utilization of Resources in Colleges and Universities as Reported in Spring 1963* (Preliminary Draft). New York, The Fund for the Advancement of Education, March 1963. 14 p. (Mimeographed.)

Desegregation

(Continued from page 7)

implied in the term "integration." Some of the major problems of the future are these:

1. Completing the job of desegregation itself and assuring the Negro student equal access to all aspects of campus life.

2. The integration of teaching and administrative staffs, a process which is in its early infancy in a few Border State institutions but which is bound to loom larger and larger each year.

3. Meeting the inevitable issue of "social equality," which may be expected to arouse considerable public discussion in the years ahead.

4. Giving greater attention to the quality of education in the Negro colleges and applying the same standards for accreditation as are applied to white institutions, since there is every indication that for a long time to come the majority of Negro students will get their higher education in predominantly Negro institutions.

OFFICE OF EDUCATION Studies AND Surveys

Linguistics and Modern Foreign Languages: Doctorates awarded, 1957 to 1961

Between 1957 and 1961, 991 persons earned doctoral degrees in linguistics and modern foreign languages: 116 in linguistics and 875 in languages. Of the 875 modern foreign language Ph. D's, 851 or 97 percent majored in Indo-European languages, particularly in French, Spanish, and German, and only 24 in Asian and African languages.

An analysis of the background of the 991 holders of Ph. D's reveals these facts: 306 were born outside the United States, most of them in Europe; 177 received their baccalaureate degrees outside the United States; 506 attended institutions of higher education abroad without earning degrees; and the average was 35 years old when he received the doctorate and had 5½ years of professional experience.

During these years college enrollment in all modern foreign languages was also increasing: from 424,067 in the fall of 1958 to 634,940 in the fall of 1961, or approximately 50 percent. And there are indications that it will continue to increase. It has been estimated that total enrollment in languages at the college level will be three times larger in 1970 than it was in 1958. Since the further increase will result in even greater demand for language teachers it is very likely that a smaller percentage of language teachers will hold Ph. D's, continuing a trend already pronounced. In 1953–54, for example, 36.3 percent of the new language teachers held a Ph. D degree; in 1961–62, only 22 percent. The number of Ph. D's awarded decreased slightly over the previous year in both 1960 and 1961. Moreover some of those who receive degrees are not increasing the supply of teachers since they are already teaching or plan other careers. Approximately 91 percent of the persons who received the doctorate in modern foreign language between 1957 and 1961 planned to teach at U.S. colleges and universities.

The information presented here and in the accompanying table has been drawn from a report of a survey made by the Office of Scientific Personnel, National Academy of Science—National Research Council under contract with the Office of Education. In addition to the information gathered in the survey the report contains supplemental information the Center for Applied Linguistics obtained from the records of doctorates the Academy maintains.

Doctoral degrees awarded in linguistics and modern foreign languages, 1957–61

Language	Ph. D awarded in—					Total 1957–61
	1957	1958	1959	1960	1961	
Linguistics	10	30	23	26	29	116
German	29	36	40	26	29	160
French	49	53	73	74	58	307
Spanish and Portuguese	52	47	46	39	49	233
Italian	3	4	2	8	4	21
Other Romance	12	13	7	11	12	55
Russian	3	4	3	4	4	18
Other Slavic	5	8	7	7	8	35
All other Indo-European	4	5	3	5	5	22
Total Indo-European	157	170	181	174	169	851
Hebrew	----	1	----	1	2	4
Japanese	1	1	----	1	1	4
Chinese	2	1	1	----	1	5
All other Afro-Asian	3	----	4	3	1	11
Total Afro-Asian	6	3	5	5	5	24
Total modern foreign language	163	173	186	179	174	875
Total linguistics and language	173	203	207	205	203	991

OE program notes

The Fulbright-Hays Act

Ninety-nine specialists in critical modern foreign languages and area studies have received awards from the U.S. Office of Education for travel and research abroad during the coming summer and the 1964–65 academic year. The awards were made

under the Mutual Educational and Cultural Exchange Act of 1961 (the Fulbright-Hays Act) section 102(b)(6), awards related to the National Defense Education Act, title VI, language development program. Responsibility for the projects implemented under this section of the act was delegated by Executive order on June 25, 1962, to the Department of Health, Education, and Welfare, to be administered by the Office of Education. Applications for about 20 additional awards are being reviewed.

Thirty-two of the recipients teach in NDEA language and area centers. There are 55 of these centers, located in 34 colleges and universities throughout the United States, receiving partial Federal support under the language development provisions (title VI) of the National Defense Education Act. The NDEA centers help to strengthen and expand instruction in the languages and allied studies of critical world areas, such as Africa, the Middle and Far East, South and Southeast Asia, Eastern Europe, and Latin America. The remaining 67 recipients are advanced graduate students undertaking on-site research overseas to complete dissertation requirements for doctoral degrees to qualify to teach critical modern foreign languages and related area studies at colleges and universities in the United States.

All of the recipients were nominated by the institutions through which they applied on the basis of the potential contribution their research would make to higher education. The applications and research proposals were approved by the Board of Foreign Scholarships, which is made up of a group of 12 citizens, appointed by the President, who are prominent in public and private educational and cultural activities. The recipients are required to have sufficient command of the pertinent language in which research will be conducted. They will be interested in developments in college level teaching materials and the science of linguistics in relation to non-Western languages, as well as their language specialties and area studies.

The awards are for periods of 2 to 12 months. Stipends are computed individually, ranging from a minimum of $225 per month for graduate students to a maximum of $1,250 per month for senior NDEA center faculty members. All awards include travel allowances. Allowances for eligible dependents may also be authorized.

Higher Education Facilities Act Progress Report

First steps toward the administration of the Higher Education Facilities Act of 1963 include the designation in each State of a commission which is required by law to prepare and submit to the Office of Education a State plan for participation in the grant program (title I). Title I grants are available to pay part of the construction cost of academic facilities for undergraduate schools.

By May 1, 1964, 42 States and outlying areas had named commissions. Final action in other States is expected shortly.

Representatives of the Office of Education have met with chairmen of State commissions and other officials who have been designated to administer the act. The purpose of these meetings, which were held in Atlanta, Ga., April 15; New York, N.Y., April 16; Chicago, Ill., April 22; and Denver, Colo., April 23, was to discuss proposed regulations governing the act, explain the procedures and administrative details relative to the work of State commissions, and discuss the development of guides to institutions on how to apply for grants.

Preliminary work has also been done on regulations and procedures governing title II (grants for construction of graduate academic facilities). The law provides that the U.S. Commissioner of Education be assisted in administering the grant program for graduate schools by an advisory committee on graduate education, which is to be established in the Office of Education. The advisory committee is to consist of the Commissioner, who shall be chairman, one representative from the Office of Space and Technology of the Executive Office of the President; one from the National Science Foundation; and eight members appointed by the Commissioner with the approval of the Secretary of Health, Education, and Welfare. The appointed members are being selected from among the leading authorities in the field of education. At least three of the members will be from the field of the humanities, at least one of whom will be from a graduate school of education.

An Office of Education task force has been preparing initial regulations, application forms and instructions. It has drafted for review preliminary policies and procedures relating to the administration of title III (loans for construction of academic facilities) and forms for submitting supplemental data with applications for loans.

Finally, the House of Representatives has approved the appropriations measure which includes funds for the operation of the Higher Education Facilities Act. By a vote of 344 to 21, on April 14, 1964, the House appropriated $463,150,000 for fiscal year 1965.

International Education

Atlantic College Project

Even though the Atlantic College project described below pertains to the secondary level of education, U.S. colleges and universities may be interested in it because of the objectives of the project and the likelihood that it may extend to the American continent.—Editor.

When Atlantic College at St. Donat's Castle on the coast of South Wales opened its doors in September 1962 a new development in international education began taking shape. The college is the first of a projected chain of residential colleges to be established in Western countries, including the United States and Canada.

These colleges will offer to a selected number of boys of different nationalities, aged between 16 and 19, a 2-year academic course before they enter the university. The boys will study, adventure, and serve together, and through sharing experiences they will learn to understand their common heritage and to respect the characteristics of other countries.

The Atlantic College project has a twofold aim, the first being concerned with the social integration of the Western community. For commercial reasons alone education must become more of an integrating and less of a disrupting force in the Western world. University admission procedures are still a major problem and the force of example is needed. To be effective in this area of strongly entrenched views and practice the example must be on a scale and of an academic stature to carry conviction. The Atlantic College project is aimed at setting this example. It is tackling the problem of university admission not by seeking a single standard but by teaching to the standard required by the universities of the country in which the college is situated and adding for the boys from other nations such extra subjects as are negotiated with each Nation.

The second aim is more fundamental. The increasing material prosperity of the Western world has brought evils in its train. Among these are a decline in the physical fitness of young men, insufficient satisfaction of the youthful instinct for adventure and a marked decline of compassion for those in need of help. The educational needs of modern society do not have to be met at the expense of more important human characteristics. The first Atlantic College, in South Wales, aims at helping boys develop the human attitudes implicit in such organizations as the Duke of Edinburgh's Award Scheme, the Peace Corps, and the President's Council for Fitness of American Youth.

A council has been formed which will be responsible for the management of the college; it is widely representative of British education, business, and public life. In full operation, this Atlantic College will house some 350 boys, of whom from 60 to 80 will be selected from the United Kingdom and the remainder from other countries in groups of 20 to 30. The college opened with 56 boys from 12 countries. It has now completed its first academic year and doubled in size with a student population drawn from 18 different countries.

An important feature in the life of the college is the teaching of modern languages. All English-speaking boys study two foreign languages, and all other boys study one foreign language in addition to English. A language laboratory has been installed. English is the main teaching language, and all subjects are taught in sets mixed nationally and graded according to the boys' standards. The British reputation for language teaching is poor, but a college of this kind has a considerable advantage as foreign languages are a daily reality not only in the classrooms, but in the corridors, on the games fields, in the sailing boats. In fact all masters and most of their wives go back to language class twice a week. The initial staff is British (450 graduates applied for the first 10 teaching posts), but the policy is that each large national group will be accompanied by a teacher of that nationality. German, French, and Scandinavian teachers have already been appointed.

The drafting of the curriculum of any international school is difficult; it is doubly so in a sixth form college which accepts only boys of university calibre. There were three possible approaches in

the British Atlantic College. Students could have followed courses leading to the matriculation examinations of their own countries. The British group could have prepared for the General Certificate of Education, the Americans for College Board Tests, the French for the Baccalaureate, the Germans for the Abitur, the Swedes for the Studentexamen. This was undesirable. It would have created a dozen schools under one roof and perpetuated those national divisions in education we wish to weaken. A common matriculation examination would be best, but the European Baccalaureate of the E.E.C. (European Economic Cooperation Organization) schools is confined to member states of the community. So meanwhile, students who attend the British Atlantic College qualify for admission to their own national universities by gaining British matriculation qualifications with agreed additions. The flexibility of the British school examination system has made this approach easy.

Boys enter at the age of 16½ to 17½. They may be entered privately but most are selected and sponsored by the educational authorities of their own countries. A fee of about 550 pounds a year is necessary. It is, however, considered highly important that no boy should be debarred from attending the college because of his parents' inability to pay the fee. Consequently systems of financial aid for students are now being established. The school year is based on two terms so that the traveling expenses of boys from abroad may be reduced. In the middle of each term there is a 1-week expedition. In these mid-term breaks students carry out projects calling for initiative, intelligence, and an interest in intellectual, social, or artistic activities outside their normal courses of study.

The activities program at St. Donat's includes both intellectual and physical activities. The intellectual activities include the usual range of arts and craftwork, music, drama, and societies. The physical activities include rugby, soccer, hockey, tennis, basketball, and similar games. None of these is compulsory. All boys, however, are given instruction in the basic techniques of athletics, swimming, climbing, sailing, and canoeing.

Sponsors of the Atlantic College project hope that the young people who attend one of the colleges will overcome both the historic and contemporary differences which divide them, that they will develop understanding and comradeship.

Other Program Notes

Review of U.S. Policies for Science and Education

THE Organization for Economic Cooperation and Development (OECD) conducts surveys of its member nations to assist them in reassessing specific programs in two areas of public policy that have an increasingly important bearing on economic growth and social well-being—the development of human resources and the stimulation of scientific and technological progress.

It recently completed a review of U.S. policies for science and education under the country review program of the committee for scientific and technical personnel. The review dealt primarily with problems of higher education in relation to the expected future demand for scientific and technological manpower, and includes an examination of the structure of higher education in the United States, the supply of undergraduates, graduate students, and teachers in higher education, and the use of State and Federal funds in financing education.

The survey was conducted by a small group of European experts who visited the United States to hold extensive discussions with Government officials, members of academic and scientific communities, representatives of industry, and other interested individuals. The observations and conclusions of the survey group were compiled into a report entitled, *Higher Education and the Demand for Scientific Manpower in the United States*, which served as the base for discussion at the OECD in Paris, January 30, 1963, by the survey experts, a special delegation from the United States, and the delegates from each of the other member countries.

OECD was formed on December 14, 1960, under a convention signed in Paris by the member countries of the Organization for European Economic Cooperation and by Canada and the United States. It came into being on September 30, 1961. The member nations are Austria, Belgium, Canada, Denmark, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Luxemburg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States

The Division of Higher Education will mail 5,000 copies of the report, *Higher Education and the Demand for Scientific Manpower in the United States*, to American colleges and educational organizations. Additional single copies may be obtained from the National Science Foundation at a cost of $1.

Bond Sales

(Continued from page 4)

	Public (*percent*)	*Private* (*percent*)	*Total* (*percent*)
Student center	6.3	3.6	5.5
Dining	.7	.2	.5
Dispensary	.3	-------	.3
Student center-dining	.2	.5	.3
Stadium	.1	-------	.1
Stadium-fieldhouse	.2	-------	.2
Campus improvements	1.6	-------	1.2
Power or heating plant	.7	-------	.4
Land	.5	-------	.4
Parking	.4	-------	.4
Other	.0	-------	.0
All facilities	71.4	28.6	100.0

Public institutions in 19 States sold bonds for instructional purposes; the largest amount in this category, $66,711,000, represented four sales by the State of New York (see table 2). Public institutions in seven States sold bonds for campus improvements; Oregon led this group. Largest sales for auxiliary purposes were in Illinois, Ohio, and Texas, in that order.

Among the private institutions, only two sales were for instructional facilities. One, by the State of Maryland for Washington College, amounted to $425,000; the other, by the New York State Dormitory Authority for St. John Fisher College, amounted to $1,440,000.

Financing by Building Authorities

In recent years several States have established a body "corporate and politic" to be responsible for financing construction for State agencies; in some States these bodies, or building authorities, are confined to the financing of higher education facilities. These authorities vary in their responsibilities and in the way they perform their responsibilities, but in general they follow the same plan of operation: the authority sells bonds for construction purposes and then leases the completed facility to the State agency until rental payments have amortized the bonded indebtedness.

The history and functions of seven building authorities are reviewed here briefly. Any interest income

Table 1.—Bond sales for higher education: Number, amount, and average interest cost, by control of institution, State, and type of obligation: Aggregate United States, calendar year 1963

State	All institutions						Public institutions									Private institutions (all revenue bonds)		
	Total bonds			Total revenue bonds			Total bonds			Revenue bonds			General obligation bonds					
	Number of sales	Amount sold (000)	Average interest (%)	Number of sales	Amount sold (000)	Average interest (%)	Number of sales	Amount sold (000)	Average interest (%)	Number of sales	Amount sold (000)	Average interest (%)	Number of sales	Amount sold (000)	Average interest (%)	Number of sales	Amount sold (000)	Average interest (%)
Total	[1] 52	[1] $752,412	[1] 3.35	480	$601,341	3.44	324	$536,889	3.32	284	$386,243	3.46	40	$150,646	2.97	196	$215,098	3.38
Alabama	11	8,018	3.32	11	8,018	3.32	8	6,461	3.29	8	6,461	3.29	----	----------	----	3	1,557	3.45
Alaska	2	3,756	3.35	1	1,106	3.38	2	3,756	3.35	1	1,106	3.38	1	2,650	3.34	----	----------	----
Arizona	6	4,860	3.48	6	4,860	3.48	6	4,860	3.48	6	4,860	3.48	----	----------	----	----	----------	----
Arkansas	9	5,571	3.40	9	5,571	3.40	7	4,771	3.40	7	4,771	3.40	----	----------	----	2	800	3.38
California	11	57,033	3.07	9	14,883	3.32	2	42,150	2.98	----	----------	----	2	42,150	2.98	9	14,883	3.32
Colorado	11	11,265	3.40	11	11,265	3.40	8	8,841	3.39	8	8,841	3.39	----	----------	----	3	2,424	3.44
Connecticut	1	1,700	3.38	1	1,700	3.38	----	----------	----	----	----------	----	----	----------	----	1	1,700	3.38
Delaware	4	3,268	3.17	2	2,480	3.32	4	3,268	3.17	2	2,480	3.32	2	788	2.72	----	----------	----

See footnote on page 16.

Table 1.—Bond sales for higher education: Number, amount, and average interest cost, by control of institution, State, and types of obligation: Aggregate United States, calendar year 1963—Continued

State	All institutions						Public institutions									Private institutions (all revenue bonds)		
	Total bonds			Total revenue bonds			Total bonds			Revenue bonds			General obligation bonds					
	Number of sales	Amount sold (000)	Average interest (%)	Number of sales	Amount sold (000)	Average interest (%)	Number of sales	Amount sold (000)	Average interest (%)	Number of sales	Amount sold (000)	Average interest (%)	Number of sales	Amount sold (000)	Average interest (%)	Number of sales	Amount sold (000)	Average interest (%)
Florida	11	11,502	3.48	11	11,502	3.48	5	8,540	3.47	5	8,540	3.47	----	----	----	6	2,962	3.49
Georgia	22	25,163	3.36	22	25,163	3.36	18	23,538	3.36	18	23,538	3.36	----	----	----	4	1,625	3.38
Hawaii	8	2,846	3.05	4	1,724	3.14	7	2,643	3.02	3	1,521	3.09	4	1,122	2.93	1	203	3.50
Idaho	6	4,836	3.37	6	4,836	3.37	5	4,680	3.37	5	4,680	3.37	----	----	----	1	156	3.38
Illinois	28	93,435	3.19	27	43,435	3.56	13	83,730	3.17	12	33,730	3.60	1	50,000	2.88	15	9,705	3.44
Indiana	19	23,220	3.52	19	23,220	3.52	14	20,065	3.53	14	20,065	3.53	----	----	----	5	3,155	3.43
Iowa	8	6,792	3.58	8	6,792	3.58	1	5,017	3.65	1	5,017	3.65	----	----	----	7	1,775	3.38
Kansas	22	5,516	3.34	22	5,516	3.34	14	2,758	3.29	14	2,758	3.29	----	----	----	8	2,758	3.38
Kentucky	22	28,704	3.49	22	28,704	3.49	20	27,734	3.49	20	27,734	3.49	----	----	----	2	970	3.38
Louisiana	9	12,386	3.49	9	12,386	3.49	6	8,620	3.61	6	8,620	3.61	----	----	----	3	3,766	3.22
Maine	2	2,350	3.15	1	350	3.50	1	2,000	3.09	----	----	----	1	2,000	3.09	1	350	3.50
Maryland	[1] 4	[1] 2,360	[1] 3.34	3	1,935	3.44	1	940	3.50	1	940	3.50	----	----	----	2	995	3.38
Massachusetts	8	9,499	3.46	8	9,499	3.46	----	----	----	----	----	----	----	----	----	8	9,499	3.46
Michigan	12	12,080	3.40	12	12,080	3.40	10	9,680	3.39	10	9,680	3.39	----	----	----	2	2,400	3.42
Minnesota	9	10,125	3.58	9	10,125	3.58	5	3,000	3.84	5	3,000	3.84	----	----	----	4	7,125	3.47
Mississippi	6	4,353	3.48	6	4,353	3.48	4	3,638	3.50	4	3,638	3.50	----	----	----	2	715	3.38
Missouri	21	18,648	3.43	21	18,648	3.43	17	14,796	3.42	17	14,796	3.42	----	----	----	4	3,852	3.47
Montana	2	1,100	3.38	2	1,100	3.38	2	1,100	3.38	2	1,100	3.38	----	----	----	----	----	----
Nebraska	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Nevada	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
New Hampshire	5	4,622	2.82	1	732	3.38	4	3,890	2.71	----	----	----	4	3,890	2.71	1	732	3.38
New Jersey	5	6,995	3.19	5	6,995	3.19	3	4,920	3.07	3	4,920	3.07	----	----	----	2	2,075	3.47
New Mexico	2	2,900	2.64	2	2,900	2.64	1	2,500	2.50	1	2,500	2.50	----	----	----	1	400	3.50
New York	29	138,766	3.44	25	133,820	3.46	6	69,681	3.52	2	64,735	3.57	4	4,946	2.99	23	69,085	3.36
North Carolina	14	7,415	3.41	14	7,415	3.41	8	4,275	3.42	8	4,275	3.42	----	----	----	6	3,140	3.40
North Dakota	7	2,800	3.80	7	2,800	3.80	7	2,800	3.80	7	2,800	3.80	----	----	----	----	----	----
Ohio	28	42,740	3.39	26	33,190	3.45	13	27,200	3.34	11	17,650	3.43	2	9,550	3.17	15	15,540	3.48
Oklahoma	21	20,268	3.43	21	20,268	3.43	21	20,268	3.43	21	20,268	3.43	----	----	----	----	----	----
Oregon	19	23,743	3.13	5	3,643	3.49	14	20,100	3.07	----	----	----	14	20,100	3.07	5	3,643	3.49
Pennsylvania	11	17,915	3.21	11	17,915	3.21	----	----	----	----	----	----	----	----	----	11	17,915	3.21
Rhode Island	8	9,280	3.28	5	5,280	3.42	6	7,800	3.26	3	3,800	3.44	3	4,000	3.08	2	1,480	3.38
South Carolina	1	569	3.38	1	569	3.38	----	----	----	----	----	----	----	----	----	1	569	3.38
South Dakota	5	2,055	3.49	5	2,055	3.49	4	1,220	3.49	4	1,220	3.49	----	----	----	1	835	3.50
Tennessee	13	12,893	3.10	12	4,893	3.45	8	10,592	3.03	7	2,592	3.47	1	8,000	2.88	5	2,301	3.42
Texas	20	33,605	3.39	20	33,605	3.39	17	31,151	3.38	17	31,151	3.38	----	----	----	3	2,454	3.46
Utah	5	5,915	3.39	5	5,915	3.39	5	5,915	3.39	5	5,915	3.39	----	----	----	----	----	----
Vermont	5	2,542	3.40	5	2,542	3.40	----	----	----	----	----	----	----	----	----	5	2,542	3.40
Virginia	9	6,684	3.30	9	6,684	3.30	5	2,510	3.12	5	2,510	3.12	----	----	----	4	4,174	3.41
Washington	12	17,619	3.47	12	17,619	3.47	9	15,216	3.47	9	15,216	3.47	----	----	----	3	2,403	3.45
West Virginia	13	5,076	3.43	13	5,076	3.43	9	2,081	3.37	9	2,081	3.37	----	----	----	4	2,995	3.47
Wisconsin	4	4,365	3.27	3	2,915	3.38	1	1,450	3.05	----	----	----	1	1,450	3.05	3	2,915	3.38
Wyoming	3	6,734	3.50	3	6,734	3.50	3	6,734	3.50	3	6,734	3.50	----	----	----	----	----	----
District of Columbia	3	4,850	3.45	3	4,850	3.45	----	----	----	----	----	----	----	----	----	3	4,850	3.45
Puerto Rico	5	1,675	3.03	5	1,675	3.03	----	----	----	----	----	----	----	----	----	5	1,675	3.03

[1] Included in this total is $425,000 allotted to Washington College (Md.) from the proceeds of general obligation bonds sold by the State of Maryland at a net interest cost of 2.89 percent.

Table 2.—Bond sales for higher education: Number, amount, and average interest cost, by control of institution, State, and type of facility: Aggregate United States, calendar year 1963

State	Public institutions									Private institutions: Auxiliary facilities (exceptions in footnotes)		
	Auxiliary facilities			Academic facilities			Campus improvements					
	Number of sales	Amount (000)	Average interest (%)	Number of sales	Amount (000)	Average interest (%)	Number of sales	Amount (000)	Average interest (%)	Number of sales	Amount (000)	Average interest (%)
Total	266	$287,764	3.42	47	$240,428	3.23	11	$8,697	3.14	[1]195	$213,658	3.38
Alabama	8	6,461	3.29							3	1,557	3.45
Alaska	1	1,106	3.37	1	2,650	3.34						
Arizona	6	4,860	3.48									
Arkansas	7	4,771	3.40							2	800	3.38
California				2	42,150	2.98				9	14,883	3.32
Colorado	8	8,841	3.39							3	2,424	3.44
Connecticut										1	1,700	3.38
Delaware	2	2,480	3.32	2	788	2.72						
Florida	5	8,540	3.47							6	2,962	3.49
Georgia	2	3,538	3.21	16	20,000	3.39				4	1,625	3.38
Hawaii	5	2,393	3.03	1	75	2.93	1	175	2.93	1	203	3.50
Idaho	5	4,680	3.37							1	156	3.38
Illinois	10	31,316	3.59	2	51,614	2.91	1	800	3.50	15	9,705	3.44
Indiana	12	18,545	3.46	2	1,520	4.38				5	3,155	3.43
Iowa	1	5,017	3.65							7	1,775	3.38
Kansas	14	2,758	3.29							8	2,758	3.38
Kentucky	16	13,674	3.35	4	14,060	3.62				2	970	3.38
Louisiana	6	8,620	3.61							3	3,766	3.22
Maine				1	2,000	3.09				1	350	3.50
Maryland	1	940	3.50							2	995	3.37
Massachusetts										8	9,499	3.46
Michigan	10	9,680	3.39							2	2,400	3.42
Minnesota	5	3,000	3.84							4	7,125	3.47
Mississippi	4	3,638	3.50							2	715	3.38
Missouri	17	14,796	3.42							4	3,852	3.47
Montana	2	1,100	3.38									
Nebraska												
Nevada												
New Hampshire	3	3,670	2.71				1	220	2.74	1	732	3.38
New Jersey	3	4,920	3.07							2	2,075	3.47
New Mexico				1	2,500	2.50				1	400	3.50
New York	1	1,970	3.13	4	66,711	3.54	1	1,000	2.94	22	67,645	3.36
North Carolina	8	4,275	3.42							6	3,140	3.40
North Dakota	7	2,800	3.80									
Ohio	12	26,650	3.35				1	550	2.89	15	15,540	3.48
Oklahoma	20	19,588	3.43	1	680	3.45						
Oregon	7	6,048	3.06	2	10,600	3.09	5	3,452	3.06	5	3,643	3.49
Pennsylvania										11	17,915	3.21
Rhode Island	4	4,800	3.39	2	3,000	3.05				2	1,480	3.38
South Carolina										1	569	3.38
South Dakota	4	1,220	3.49							1	835	3.50
Tennessee	6	2,042	3.44	2	8,550	2.93				5	2,501	3.42
Texas	15	24,651	3.46	1	4,000	2.93	1	2,500	3.31	3	2,454	3.46
Utah	5	5,915	3.39									
Vermont										5	2,542	3.40
Virginia	5	2,510	3.12							4	4,174	3.41
Washington	8	10,636	3.46	1	4,580	3.48				3	2,403	3.45
West Virginia	9	2,081	3.37							4	2,995	3.47
Wisconsin				1	1,450	3.05				3	2,915	3.38
Wyoming	2	3,234	3.50	1	3,500	3.50						
District of Columbia										3	4,850	3.45
Puerto Rico										5	1,675	3.03

[1] In addition to the sales listed, there were two which produced funds for academic facilities at private institutions: in Maryland, one which produced $425,000 at a net interest cost of 2.89 percent; in New York, one which produced $1,440,000 at a net interest cost of 3.39 percent.

earned by any of these apparently is exempt from State and Federal taxes.

The Florida Development Commission was established in 1955. Its members include a chairman from the State at large and nine others—one from each congressional district—all appointed by the Governor. The chairman and four members are appointed for 2 years; the other five members, for 4 years. The members are reimbursed for expenses only, and the director is paid a salary.

The purposes of the commission include: (1) To create and build Florida industries; (2) to disseminate information on Florida; (3) to encourage educational activities necessary for proper execution of powers; (4) upon request of the Governor, to report on public improvements and their financing; (5) to act as an official agency for receiving funds advanced to the State; (6) to accept and expend money granted to the commission; (7) to subscribe for, purchase, acquire, own, sell, or dispose of bonds considered needful; and (8) to construct, acquire, own, and operate buildings and facilities through use of revenue certificates. Resolutions on bonds must be approved by at least six members of the commission. The laws also provide that bonds sold by the commission must mature within 30 years and that interest rates cannot exceed 6 percent.

On July 12, 1962, the commission sold improvement revenue bonds amounting to $25 million to finance instructional and general facilities in the State university system.

The University System Building Authority of Georgia was established in 1949. It has seven members: the Governor, the State auditor, the State attorney general, the chairman of the board of regents, the chancellor of the university system, the chairman of the State board of education, and the State superintendent of schools. Its purposes include: (1) To finance and construct buildings on the campuses of institutions operated and controlled by the board of regents of the university system, and (2) to enter into contracts, leases, and other instruments with respect to the use of such buildings.

The authority acts to obtain funds after the board of regents has authorized a construction project and, when the facility is completed, leases it to the institution. From rentals and lease deposits in its revenue fund, the authority pays into its sinking fund the monthly amount due for interest and principal.

On March 31, 1963, the authority balance sheet showed completed buildings costing $26 million and incompleted projects totaling $27 million.

The Illinois Building Authority was established in 1961. It has seven members, who are appointed by the Governor and approved by the Senate (none may be an elected official). The members are reimbursed for expenses only. Before entering upon his duties, each member must take the constitutional oath of office and give bond of $100,000.

The authority's purposes include: (1) To build and otherwise provide hospital, housing, penitentiary, administrative, classroom, library, recreational, laboratory, office, and other such facilities for use by the State; (2) to conduct continuous studies into the need for such facilities; and (3) to serve the general assembly by making reports and recommendations on such facilities. The authority may also equip the facilities.

Bonds sold by the authority may not mature later than 40 years after the date of issue and may bear no more than 5 percent interest. Amortization payments may be made solely from revenues derived from the operation of the facilities and from rental leases. The records of the authority must be audited annually by accountants authorized to practice in Illinois.

The Dormitory Authority of the State of New York was created in 1944. The original law empowered the authority to construct facilities at the State teachers colleges but later amendments extended its powers to other State institutions of higher education and, in 1955, to *private* institutions. The members of the authority are the State commissioner of education, the State comptroller, the president of the State University of New York, and four members appointed by the regents of the University of the State of New York. The members are reimbursed for their expenses only.

The purposes of the authority include: (1) To acquire real and personal property; (2) to construct and equip dormitories and related facilities, including, for private institutions only, academic, classroom, and other buildings necessary or useful for instruction; (3) to maintain, reconstruct, and operate buildings until cost and bonds have been liquidated; (4) to borrow money and issue bonds; and (5) to operate and manage, or lease, buildings to institutions.

As of June 1, 1963, the authority had issued bonds

totaling $96 million for the State university and $42 million for private colleges. Of the total amount that the authority has issued, $133 million was still outstanding.

In addition to the funds which the authority has received from bond sales, it has also received State appropriations totaling $58,674,000 up to June 30, 1962, which funds have been used for constructing and equipping dormitories and related facilities.

The authority is responsible for contracts with architects. Its records are audited annually by the office of State comptroller.

The New York State Housing Finance Agency, a corporate government agency, was created in 1960. Its members include the commissioner of housing and community renewal (chairman), the director of the budget, the commissioner of taxation and finance, and two other members appointed by the Governor and approved by the Senate. Three members constitute a quorum.

The agency is authorized to issue bonds and notes to finance facilities for the State University of New York, including construction, acquisition, rehabilitation, and improvements on real property. To assure that the facilities are available when needed, another legislatively created body, the State University Construction Fund (administered by three trustees appointed by the Governor), can act as the agent of the Housing Finance Agency in securing the facilities and can lease them from the agency for the university, for not exceeding 30 years. The University Construction Fund is required to assist, cooperate and consult with, and make its services available to the university in such matters as planning, construction, and equipment.

On November 1, 1963, the Housing Finance Agency sold its first series of bonds, totaling $62,765,000, for the purpose of providing instructional facilities at seven branches of the State university.

The Board of Trustees of State Colleges (Rhode Island), though not a building authority, was given the authority in 1962 to issue up to $20 million in revenue bonds to finance the construction of dormitories, dining halls, and other auxiliary facilities at the University of Rhode Island and at Rhode Island College. Terms of the bonds may not exceed 40 years.

The first bond issue, on March 27, 1963, was for $2,250,000 to finance the construction of an addition to the student union at the University of Rhode Island.

The Wisconsin State Colleges Building Corporation was created in 1949. Its members are the members of the board of regents of the State colleges. No salary or compensation is paid to the members. The corporation meets annually, but special meetings may be called on a petition by three members.

The purposes of the corporation include the following: (1) To construct, equip, and furnish buildings and other permanent improvements on real estate for institutions under the board of regents of State colleges; (2) to lease and rent real estate and buildings to the board of regents of State colleges; and (3) to lease lands and construct on them as approved by the board of regents of State colleges.

The corporation has served as an agent for borrowing funds from the Housing and Home Finance Agency (HHFA) to finance construction of both dormitories and student centers at the nine locations of the Wisconsin State colleges. The corporation's loan balance with HHFA as of April 30, 1963, was approximately $27 million.

Massachusetts has two authorities, each of which has been created for a single institution of higher education: The University of Massachusetts and the Lowell Technological Institute (there are 18 other publicly supported institutions in that State). *The University of Massachusetts Building Authority* was established in 1960, and the *Lowell Technological Institute Building Authority* in 1961. The purpose of each is to construct, reconstruct, equip, maintain, and repair dormitories, dining commons, and other buildings for the use of the institution, its students, and its staff and their dependents. Neither authority may undertake to construct any buildings except upon written request from the trustees of the institution. The act which established the authorities permits them to issue tax-exempt bonds under a trust agreement with guaranty by the State. The accounts of each authority are reported to the Governor, the State auditor, and the trustees of the institution.

The creation of these several building authorities seems to represent a trend toward consolidating State construction programs. In view of the sizeable higher education construction now being forecast for the coming years, it is quite possible that additional authorities will be created solely to expedite college and university construction.

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